DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS DIVISION

OFFICE SAFETY INSPECTION PROGRAM (OSIP)
INSPECTION REPORT

CAPE SMYTHE AIR SERVICE, INC.
AIR CARRIER CERTIFICATE NUMBER CSAA021A

FAIRBANKS, ALASKA

February 28 - March 4, 2000

TEAM LEADER
Dennis L. Ward
AL-FSDO-01

EXECUTIVE SUMMARY

DESCRIPTION OF CERTIFICATE HOLDERS OPERATION

Cape Smythe Air Service, Inc., is a Federal Aviation Regulations (FAR) Part 135 Air Carrier and holds scheduled Commuter and On-demand Operations Specifications under FAA Certificate Number CSAA021A. Cape Smythe Air Service, Inc.'s corporate headquarters, main base of operations, and maintenance facility, are located at 1707 Ahkovak Street, Barrow, Alaska. Cape Smythe Air Service, Inc., has operations and maintenance facilities at Nome and Kotzebue, Alaska, with a line station at Deadhorse, Alaska.

Cape Smythe Air Service, Inc., employs the following personnel:

15 Certificated Mechanics
3 Check Airmen
1 Chief Pilot
1 Director of Operations
1 Chief Inspector
1 Director of Maintenance
22 Pilots-in-Command*
66 Employees

OVERVIEW OF INSPECTION RESULTS

Findings documented during the inspection that are being investigated for possible non-compliance with the Federal Aviation Regulations are manuals and maintenance practices.

Cape Smythe Air Service, Inc., was found to have deviated from approved or accepted procedures in the areas of manuals and procedures.

ACKNOWLEDGEMENTS

The inspection team would like to thank Cape Smythe Air Service, Inc.'s personnel for their time and cooperation during the inspection.

OVERVIEW OF SYSTEMS SAFETY

Guidance for the following overview of systems safety was obtained in part from the seven Air Carrier Systems described in Airline Transport Oversight System (ATOS) and Order 8400.10, Change 12, Appendix 6, Air Carrier System, Subsystem and Element Tables. Those systems perceived by the inspection team as having potential problems, warning signs or non-compliance, and systems considered to be best practices are discussed.

A base inspection was conducted on Cape Smythe Air Service, Inc., during the week of February 28 through the week of March 4, 2000. Team members were dispersed to the Barrow, Nome, and Kotzebue, facilities. The inspection team interviewed management, supervisors, pilots, customer service agents, cargo personnel, and maintenance personnel. Surveillance, inspections, and reviews were conducted in Barrow, Nome, Kotzebue, and Deadhorse in the following operational and maintenance areas:

FIGURE 1

CAPE SMYTHE AIR SERVICE, INC.
May 24, 1996 to March 10, 2000
ACCIDENTS AND INCIDENTS

LOCATION	PA-31-T3	PA-31-350	CE-185	CE-206/207								TOTAL
Stebbins	1											1
Savoonga	1											1
Kotzebue	1											1
Wales	2											2
Pt. Lay		1										1
Pt. Hope		1										1
Barrow	1											1
Haycock			1									1
Off Airport			3									3
PHASE OF FLIGHT												
Landing	5	2	2	1								10
Takeoff			1									1
Taxi	1											1
CREW												
Single Pilot	6	2	3	1								12
2 Pilot												
MECHANICAL CAUSES		1		1								2
COASTAL DESTINATION	5	2										7

TOTAL OF 14 – 2 MECHANICAL

FIGURE 2

CAPE SMYTHE AIR SERVICE, INC.'S PERSONNEL WHO ARE ACTUALLY RESPONSIBLE

		EXERCISES OPERATIONAL CONTROL	SCHEDULES PILOTS	SCHEDULES AIRCRAFT	SCHEDULES MISSION	RESPONSIBLE FOR WEATHER ANALYSIS DECISION GO/NO GO	MANAGER TRAINING IOE	FLIGHT FOLLOWING	SUPERVISES PILOTS	REPORTS TO:
NOME	STATION MANAGER									
	PILOTS				X	X				DO
	SENIOR PILOT/NEXT SENIOR PILOT	X	X	X						DO
	MECHANICS/DOUG DEERING		X							DO
	DIRECTOR OF OPERATIONS					X		X		PRES.
	CHIEF INSPECTOR									PRES.
	TICKET AGENTS						X			
KOTZEBUE	OTZ STATION MGR./MAIN MECHANIC	X	X	X	X			X		
	OTZ TICKET AGENTS/FLT. FOLLOWERS						X		X	STATION MANAGER
	OTZ PILOTS					X	X			
BARROW	BRW STATION MGR.	X	X	X						PRES.
	BRW CHIEF PILOT						X	X		DO
	BRW PILOTS				X	X				CP
	BRW FLIGHT FOLLOWERS	X	X	X			X		X	STATION MANAGER
	DIRECTOR OF MAINTENANCE		X							

OPERATIONS:

11 Ramp Inspections
9 Enroute Inspections
1 Manual Review
4 Trip Records Reviews
1 Pilot Records Inspection
4 Flight Following Inspections
4 De-Icing Procedures Inspections
4 Facility Inspections
1 Main Base Inspections
3 Sub Base Inspections

AIRWORTHINESS:

4 Ramp Inspections
7 Maintenance Spot Inspections
9 Aircraft Records Reviews
9 Aircraft Airworthiness Directive Reviews
2 De-Icing Procedures Inspections
3 Parts Facility Inspections
3 Fueling Facility Inspections
3 Technical Manual Reviews
1 Main Base Inspections
2 Sub Base Inspections
5 Mechanic Certificate Reviews

The objectives of the Cape Smythe Air Service, Inc.'s system safety overview and inspection were two fold; the first objective was to identify any systemic trends that could lead to future unsafe conditions or significant non-compliance; the second was to provide an independent analysis, identification, and possible resolution to any root safety issues identified during the inspection. To facilitate objective number one, a computer search of FAA accident/incident records for this operator was conducted in preparation for the base inspection. The search revealed the company had 14 accident or incidents between March 24, 1996, and March 10, 2000. Two of the 14 were related to mechanical difficulties. During the four year period, eight of the 12 pilot-induced accidents were classified as accidents and four as incidents. Eight of the 12 accidents/incidents involved PA-31 aircraft, of which six were PA-31T3. Three of the eight accidents were off airport take off and landing mishaps involving a Cessna 185. **(Figure 1)**

Trends noted in this analysis are as follows:

1) All accidents/incidents involving multiengine aircraft were flown by a single pilot crew;

2) Seven out of eight PA-31 aircraft accidents/incidents occurred at coastal destinations;

3) Four of the PA-31 accidents occurred at three villages; Wales, Point Hope, and Point Lay;

4) Seven out of eight PA-31 accidents/incidents occurred during approach or landing;

There are at least five other carriers serving the same destinations as Cape Smythe Air Service, Inc., out of Barrow, Nome, and Kotzebue. During the same time period, May 24, 1996 to March 10, 2000, these five other carriers had a cumulative total of nine pilot-induced accidents/incidents, none of which were at the same destinations.

Objective number 2 was to identify, analyze, and provide possible resolutions to any root safety issues identified during the inspection. Team members have identified three root safety issues. These are as follows: 1) a lack of procedures; 2) a lack of oversight; and 3) a lack of training.

LACK OF PROCEDURES

The company does not have any written procedures which standardize how pilots are assigned to flights. Pilots are assigned to flights by the station manager in Barrow, by the most senior pilot in Nome, and by the station manager/mechanic in Kotzebue. Please note that all employees interviewed said the pilots were scheduled for each specific type of aircraft utilizing a qualification sheet. This sheet was supposed to show which pilots were qualified to fly which aircraft. The Barrow station qualification sheet was not current. In Nome and Kotzebue, the qualification sheet was not available and not being used. In reality, pilots are assigned on the basis of availability only. This has resulted in a relatively inexperienced new

pilot being assigned to a difficult mission. For example, on August 25, 1997, a pilot was assigned a Cessna 185 flight to an off airport location. Upon arrival, the pilot crashed on landing in strong gusting crosswinds. At the time of accident, the pilot had a total of 200 hours in a Cessna 185. The same pilot was assigned another Cessna 185 flight two months later, to another off airport location. This time, the pilot crashed on take off. The aircraft was on skis and failed to become airborne, impacting on a riverbank. Duty assignment was based on availability in both of these cases and contributed to both accidents. The chief pilot admitted that this pilot did not have the experience necessary to evaluate off airport conditions and effect a safe outcome. He said a more experienced pilot should have been assigned.

The accident that occurred at Wales on February 9, 2000, involved the pilot who was recently hired by Cape Smythe Air Service, Inc., on November 5, 1999. This pilot completed all required training and received his autopilot check on January 27, 2000, in a PA-31-T3. This qualification enabled the pilot to fly scheduled passenger flights in the T3 under instrument flight rules (IFR). Fourteen days later, this pilot was assigned, and accepted, an IFR flight to Wales. Upon arrival at Wales, the pilot did not accurately evaluate wind and weather conditions and crashed. This pilot had a total of 196 hours in the T3 at the time of the accident. As in the previous two accidents, the company did not have effective procedures that matched the pilot's experience level with mission difficulty. According to information gathered in interviews, this pilot was assigned this flight on the basis of availability. In all three of these accidents, the pilots could have refused the flights, could have rejected the landing attempts, or rejected the take off attempt, had they had enough experience to properly evaluate conditions.

LACK OF OVERSIGHT

Operational control is defined by Federal Aviation Regulations Part 1 as "The exercise of authority over initiating, conducting, or terminating a flight." Issues relating to operational control at Cape Smythe Air Service, Inc., are diverse and complex. The diversity and complexity of their operational control stems from the wide geographic separation of the Barrow, Nome, and Kotzebue stations. All three locations operate independently and provide dedicated flight crews, scheduled flights, and on-site maintenance.

The General Operations Manual lists five individuals as having operational control. These are the president, Grant Thompson; the director of operations, Wayne Meyers, the director of maintenance, Tom Nicolos; the chief maintenance inspector, John Kruse, and the chief pilot, Kirk Pfeiffer. The president, director of maintenance, and the chief pilot all reside in Barrow. The director of operations and chief inspector live in Nome. None of the persons holding operational control live in Kotzebue.

The director of operations (DO), is also a line pilot and flew an average of 32 hours per month during the last 10 months and as much as 60 hours in one month. The DO does split his time to a limited extent between Nome and Barrow, but is dedicated primarily to Nome.

The chief pilot maintains pilot records and schedules training and checking for all three locations. He is a line pilot and flew an average of 90 hours per month during the last 10 months, and sometimes as much as 120 hours in one month.

The director of operations, and particularly the chief pilot, are removed from the operational control loop by virtue of their line flying requirements. While flying the line, they are not able to provide oversight of those persons who are exercising operational control.

Interviews were conducted, and observations were made, at all three locations throughout the inspection to determine who was actually exercising operational control. These people were identified as the station manager or his assistant in Barrow, the most senior pilot or the next senior pilot in Nome, and the station manager/mechanic in Kotzebue. **(Figure 2)**

Since the DO and the chief pilot are frequently unavailable, they are unable to provide adequate oversight of the Barrow station manager or the senior pilot in Nome. No one is available to provide daily oversight of the Kotzebue station.

An analysis of Cape Smythe Air Service, Inc.'s accidents and incidents between May 24, 1996 and March 10, 2000, indicates the company's oversight of flight operations is ineffective. All 12 of the accidents and incidents involved single pilot crews. Seven of the multiengine occurrences were at coastal destinations. All of these were during approach or landing. Four of the multiengine accidents occurred at three villages, Wales, Point Hope, and Point Lay.

Examples of ineffective oversight are seen in a review of several of Cape Smythe Air Service, Inc.'s accidents. A qualified and relatively inexperienced pilot was assigned, and accepted, a Cessna 185 flight to an off airport location. He crashed on arrival. The pilot was retrained and reassigned, and accepted another Cessna 185 flight two months later to an off airport location, and crashed again. The chief pilot, at the time, admitted the pilot did not have the experience necessary to accomplish either mission. Effective oversight, in this situation, would have provided a pilot experienced enough to complete or refuse the mission.

Another example of ineffective oversight is seen in the incident involving the icy ramp collision of the PA-31-T3 and BE-99 in Barrow. The pilot had recently been qualified in the PA-31-T3. Although nothing was found wrong with the T3's brakes, the pilot had recently complained they were ineffective. On the morning of the incident, the chief pilot at the time said the ramp was so icy it was hard to walk. The pilot went out and started the T3, which was parked close to and behind a BE-99. After engine start, the T3 slid into the back of the BE-99 causing extensive damage to both. Effective oversight would have anticipated the problems associated with icy ramp conditions, coupled with a pilot with limited experience, and requested one or the other aircraft be moved prior to starting the T3.

As previously stated, during the last four year period, daily oversight of flight operations and crew assignment has not been handled by the DO or the chief pilot. It has been handled by station managers in two of the three locations who were not qualified and current pilots. The lack the aviation expertise has resulted in crews being assigned on the basis of availability and not on experience, weather, and destination difficulty.

An effective oversight program should have identified and must address at least the following areas of concern:

1) Why are all the occurrences single pilot crews?

2) Why did 90% of the multiengine accidents occur during approach and landing?

3) Why were 60% of the multiengine accidents at three locations?

LACK OF TRAINING

Cape Smythe Air Service, Inc.'s Training Manual and maneuvers document meets regulatory requirements. Results from this year's inspection indicate all pilots were trained and qualified. However, inspection team members believe a lack of training has contributed to the high number of accidents and incidents.

Company management routinely elaborates on how difficult flying is on the North Slope and on the northwestern coast of Alaska. This belief is supported by the remoteness of the destination, inclement weather, and to some extent, the lack of weather information at some destinations.

Cape Smythe Air Service, Inc.'s accident/incident record indicates these areas are indeed difficult. As previously stated, four of the last seven multiengine accidents were at three coastal destinations, including Wales, Point Hope, and Point Lay.

The training program does not contain a special subjects curriculum addressing any of the concerns identified by management as being responsible for the difficult flying conditions. For example, the Alaska Supplement describes the Wales Airport as experiencing severe turbulence during easterly winds. On February 9, 2000, at the time of the Cape Smythe Air Service, Inc.'s T3 arrival at Wales, strong winds were reported out of the south and east. According to the pilot and passengers, the aircraft encountered severe turbulence over the runway and then crashed.

Cape Smythe Air Service, Inc., completed training for a new pilot in July of 1998 and assigned the pilot to a PA-31-350. Over the next six months the pilot said he flew into Point Lay "a couple of times in daylight hours." On December 3, 1998, this same pilot departed Kotzebue at night on an IFR flight plan to Point Lay. Upon arrival the pilot executed an NDB approach to runway 5 and crashed during a circle to land maneuver. Weather conditions reported were northeast winds at 26 knots, 1¾ miles visibility in blowing snow and 800 overcast. At the time of impact the pilot had 311 hours multiengine time, all in a PA-31 aircraft.

In summary, these two accidents occurred with low time, new pilots. They both happened in poor weather conditions with snow and blowing snow. Both happened during approach and landing.

Both pilot's decision-making abilities were flawed. Neither pilot was able to successfully compare inclement weather conditions at their destination with their skill level and ability to operate safely in those conditions, and effect a safe outcome. On the one hand, the pilot's record from the Wales accident, does not reflect any IOE into Wales. Since Wales in singled out by the Alaska Supplement as having unusual wind conditions, additional and continued training by the company would have been appropriate. On the other hand, the two trips into Point Lay for the other pilot did not prepare him for conditions encountered on this third trip. Apparently, the pilot had not received any night training into this airport with low ceilings and visibility and wind. Additional training in these areas may have given this pilot a wider experience base from which a more appropriate decision could have been made.

TECHNICAL ADMINISTRATION

Although not regulatory for your maintenance operation, Cape Smythe Air Service, Inc., would be well served to develop a system of accountability to include position descriptions, lines of authority, responsibility, and delegation for the station maintenance supervisors in Nome and Kotzebue. Discussions with employees at all three maintenance locations revealed they have been assigned unofficial authority and responsibility in Nome and Kotzebue. A review of the company's manuals showed the director of maintenance has the inability to delegate duties in his absence. This resulted in Finding 2.03.02. With a system of accountability, back up, and cross check, we believe safety is greatly enhanced and the potential for non-compliance with the regulations is reduced.

ADDITIONAL OBSERVATIONS

This segment provides a brief synopsis of observed operational policies and procedures that are a part of the company's safety attributes and culture.

1. According to the director of operations and the chief pilot, all pilots receive IOE to all of the destinations served from the station at which the pilot is to be based. However, a pilot who is trained and stationed, for example, at Barrow, and is temporarily reassigned to Nome, will not receive any additional IOE or local airport familiarization.

2. Company management indicated they do not terminate employees because of mistakes, accident, incidents, or violations because it is too hard to replace pilots. This policy which is detailed in the operational manual, pages "Policy-9 and 10", appears to be operational. Some pilots, who were involved in a trend of accident, incidents, complaints, and or violations; were not terminated. The company has chosen to look at these trends as a very expensive learning experience.

3. During the inspection, an issue of ramp safety was brought to the attention of management. A Beech-99 taxied in and parked in close proximity to a CE-207. The Cessna was running and preparing for departure. In order to enter the terminal, the deplaning Beech passengers had to walk within 20 feet of the running CE-207 and through its prop blast.

4. During a de-icing procedure in Nome, company personnel appeared to be somewhat unfamiliar with aircraft de-ice procedures. They were observed de-icing surfaces on the aircraft that did not have any accumulation of ice.

SUMMARY

Federal Aviation Administration Order 8400.10, Chapter 8, directs air carrier's management to have as their highest priority, the assignment and maintenance of safety. To this end, air carrier's management has the responsibility for recognizing procedures that fail to attain the goal of safety. It is not enough for an experienced air carrier's management, such as Cape Smythe Air Service, Inc., to step in only when problems arise, nor is it enough for management to correct problems only as they are brought to its attention by this report. Management expertise entails taking an active role, not simply reacting to events.

Cape Smythe Air Service, Inc., has failed to recognize company procedures responsible for the unacceptably high accident and incident rate. Not only has the company not taken an active role in the resolution of problems, company reaction to pilots responsible for the repeat events has been to treat the issue as a very expensive learning experience. Pilots typically receive a short company suspension for an accident, incident, or FAA violation.

The Federal Aviation Administration has identified several air carrier compliance alert indicators that are areas of concern in certificate holder's operations. Those that apply to Cape Smythe Air Service, Inc., are as follows:

1. Operational policies that inhibit the ability to resolve safety-related problems In this case, Cape Smythe Air Service, Inc.'s operational policy does not allow for adequate oversight of flight operations.

2. Increases in accidents, incidents, and violations. In this case, Cape Smythe Air Service, Inc. has an unacceptably high accident/incident rate.

FAA Order 8400.10, refers to training programs as a system of instruction that include curriculum, facilities, instructors, and testing and checking. A training program must satisfy the requirements of FAR Part 135, and ensure that each pilot remains adequately trained for each aircraft operation in which the pilot serves. In this case, Cape Smythe Air Service, Inc.'s accident/incident analysis indicates pilots may not have received adequate training to conduct assigned operations safely.

FAA Order 8400.10, identifies flight crew scheduling as critical to operational safety. Scheduling should be based on a number of factors that have been identified as affecting crew performance. Those that apply to Cape Smythe Air Service, Inc., are as follows:

1. Climatic conditions such as extreme cold, frost, ice, and snow. Most of these factors have been involved with Cape Smythe Air Service, Inc.'s accidents and incidents.

2. A high number of instrument take off, approaches, and landings. In this analysis, Cape Smythe Air Service, Inc.'s pilots have had a number of accidents associated with instrument approaches and VFR approaches in low visibility conditions.

3. Low experienced flight crews. This analysis has shown that some pilots involved in accidents and incidents were low experienced.

RECOMMENDATIONS

In view of the foregoing analysis of Cape Smythe Air Service, Inc.'s operational policies, accident rate, training, and crew scheduling, the following recommendations are made:

1. The company should develop standard written procedures which outline how pilots will be assigned to specific flights at each base of operation. This procedure must provide for assignment of pilots on the basis of experience and not on availability.

2. The person responsible for pilot assignment should be someone with aeronautical experience and be able to evaluate runway and weather conditions. The person assigning flights must understand an inexperienced pilot may accept a flight that might be refused by a more experienced pilot.

3. Daily oversight of flight operations and pilot assignments should be provided by the DO and chief pilot. We recommend a great reduction in, or the elimination of, line flying obligations for these two key managers. Flight operations for these two employees should include frequent enroutes with line pilots, particularly with less experienced pilots flying in difficult conditions. Other flight obligations should include IOE training and check rides.

4. The inspection team recommends that the company change its crew compliment in PA-31 aircraft from a single pilot crew to a two pilot crew. We believe a second pilot would have put the gear down on the Savoonga gear up incident. A second pilot in the Kotzebue T3 accident would have called out altitudes and tuned radios allowing the flying pilot to continue flying the approach to a successful landing. A second pilot on board the PA-31 accident at Point Lay would have allowed the flying pilot to safely fly the aircraft by providing altitude call outs. A second pilot on board the February 9, 2000, T3, going into Wales, may have provided the second opinion on conditions needed to initiate a go around in a timely manner. A second-in-command on the PA-31 at Point Hope, on May 24, 1996, may have ensured that the nose baggage door was closed prior to departure. Please note that Cape Smythe Air Service, Inc.'s number of pilot-induced accident and incidents between 1994 and the present for two pilot crews is zero.

5. Team members recommend that Cape Smythe Air Service, Inc., develop a special subjects training curriculum. This curriculum should contain at least the following:

   A. A detailed description and lecture on weather and airport conditions for at least Wales, Point Hope, and Point Lay. Subject matter should include reduced visibility in snow and blowing snow or fog, icy runways, wind patterns, unexpected turbulence, runway conditions, and the effect of flat light and darkness on approach and landing.

   B. Ground and flight training should place special emphasis on approach and landing techniques at coastal villages, and in particular at Wales, Point Hope, and Point Lay, during daylight and darkness hours.

C. The company should train all pilots to set personal minimum acceptable weather conditions for landing at each of these airports.

D. The company should continue flight observations and enroute training for new pilots during poor weather conditions. This should be done by the DO, chief pilot, or other line check airman. Additional enroute training should be conducted at all coastal destinations, but in particular Wales, Point Hope, and Point Lay. This training should be conducted both during daylight and darkness hours, and particularly during poor weather conditions.

6. The company should develop and implement a risk assessment program. This program would be used by pilots and operational control personnel in the daily oversight of all Cape Smythe Air Service, Inc.'s aircraft ground movement and flight.

7. The company should provide some form of IOE or airport familiarization to pilots who are temporarily assigned to a different duty station.

8. The company should reevaluate its policy and procedures on disciplinary measures applied to pilots.

9. The company should develop and implement a ramp safety program to improve passenger safety.

10. All company personnel involved in de-icing procedures should receive training on what parts of an aircraft to de-ice.

11. The company should develop a system of accountability to include position descriptions, lines of authority, responsibility, and delegation for the Nome and Kotzebue station maintenance supervisors.

BEST PRACTICES

Cape Smythe Air Service Inc.'s flight and duty time records are maintained by a computer system developed by Time Pilot Asten Systems, Inc. Once the flight time is recorded for a specific pilot, this system automatically calculates the duration of the flight, the flight time flown in the previous twenty-four hour period, and the time left for a pilot to fly in the next twenty-four hour period. The system automatically calculates the flight time remaining, regardless whether the pilot was operating as a single pilot crew or two pilot crew. This system also tracks duty time, accumulative days off, and monthly summary report. The flight operations personnel can determine after each flight, how much flight time he has left before he will exceed his eight or ten hours of flight time, depending on his crew position. The flight operations personnel then informs the crew member as to the amount of flight time he has left, and the pilot can then determine whether he can complete the mission. Additionally, if the pilot has overflown his time eight or ten hours by thirty minutes, it would be shown as -30 in the time left column. Because they can review the time flown in the past twenty-four hours directly after each flight, operations personnel, as well as the auditor, can track the flight and duty time in such a manner as to avoid such violations.

Although there were no findings, there were several areas of concern noted. The Nome base of operations inputs and tracks the pilot's flight time, but it is the responsibility of the pilot to check this information to ensure he does not exceed his 8 in 24 flight time limitations. In Kotzebue, although all pilots are on a set duty day assignment, no one has the expertise to track or work within the system. Additionally, those interviewed in Nome and Kotzebue said once the information is entered, Barrow does not receive the information until it is downloaded through their data link.

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1.0 OPERATIONS

1.01 MANAGEMENT AND ADMINISTRATION

DESCRIPTION: Cape Smythe Air Service, Inc., owns or leases all of the aircraft they operate. Company personnel meet the requirements for management positions. Cape Smythe Air Service, Inc., uses an approved drug testing program. Cape Smythe Air Service, Inc.'s Director of Operations is a line pilot and is responsible for maintaining the company's FAR Part 135 Operations Manual. He is also a check airmen for all of the aircraft Cape Smythe Air Service, Inc. operates. The chief pilot is a line pilot and is responsible for maintaining the pilot training and qualification records. He is also a check airmen for all of the aircraft Cape Smythe Air Service, Inc., operates. The director of operations interfaces with the Federal Aviation Administration.

INSPECTION DATA: The inspection team conducted interviews, reviewed Operations Specifications, company Operations Manual, and personnel qualifications.

FINDINGS: None.

1.02 OPERATIONS SPECIFICATIONS

DESCRIPTION: Cape Smythe Air Service, Inc., holder of Air Carrier Certificate Number CSAA021A, has been issued the new automated Operations Specifications and is operating under the terms and limitations stated therein. The certificate holder is authorized to conduct interstate commuter operations under FAR Part 119 and FAR Part 135, in Alaska and Canada. They are not operating under any deviations. The certificate holder is operating under Exemption number 7048, which allows Cape Smythe Air Service, Inc., to operate BE-99 aircraft with ten passenger seats or more for on-demand operations under FAR Part 135.

Cape Smythe Air Service, Inc., has been authorized to conduct the following operations:

* Special Enroute IFR Operations in Class G Airspace.
* Autopilot in Lieu of Required Second-in-Command,
  Specifically for: BE-99-C99
  PA-31-350
  PA-31-T2
  PA-31-T3
* Air Ambulance Operations.
* Class I Navigation in the U.S. Class A Airspace Using Area or Long Range Navigation Systems, Specifically in PA-31-T2.
* Class I Enroute Navigation Using Area Navigation Systems.
* Class II Navigation Using Long Range Navigation System (S-LRNS)
* Published R-NAV Instrument Approach Operation Using an Area Navigation System.

INSPECTION DATA: Company Operations Specifications, Sections A, B, and C, were compared with the General Operations Manual and the Fairbanks Flight Standards District Office copy to determine currency and compared to FAR Part 119 and FAR Part 135 for accuracy.

FINDINGS: None.

1.03 OPERATIONS TRAINING

DESCRIPTION: Cape Smythe Air Service, Inc., operates BE-99, CE-185, CE-207, PA-31-350, PA-31-T2, and PA-31-T3 aircraft in FAR Part 135 scheduled and on-demand passenger and cargo service. Cape Smythe Air Service, Inc., conducts all FAR Part 135 training using company personnel and aircraft.

The chief pilot is responsible for ensuring training and flight checks are accomplished within the required time frame. The company has several flight instructors, ground instructors, and check airmen. The chief pilot maintains training and qualification records for all pilots.

INSPECTION DATA: The inspection team reviewed the flight training manual, course, and facilities. Previous inspection results were also reviewed. The director of operations and the chief pilot participated by answering questions and locating records for the inspection team.

FINDINGS: None.

1.04 CREW MEMBER QUALIFICATIONS

DESCRIPTION: Cape Smythe Air Service, Inc., maintains crew qualification records by written methods. All pilot records are located at the main base of operations, located at 1707 Ahkovak Street, Barrow, Alaska. The chief pilot is responsible for ensuring all training and qualification requirements are met.

INSPECTION DATA: The inspection team reviewed all crew member records.

FINDINGS: None.

1.05 OPERATIONS MANUALS AND PROCEDURES

DESCRIPTION: Cape Smythe Air Service, Inc., has an Operations Manual which meets the requirements of FAR Part 135.

INSPECTION DATA: The Operations Manual was reviewed for policy and procedure.

FINDING 1.05.01: The Operations Manual in Nome and Kotzebue were contradictory. In Nome, the Introduction section of the Operations Manual did not have a revision number. In Kotzebue, the Introduction section of the Operations Manual was listed as original. Furthermore, in Nome, the Operations Manual Table of Contents was revision one, compared to Kotzebue at revision three. Finally, in Nome, the Foreign section of the Operations Manual was empty. In Kotzebue, the Foreign section of the Operations Manual contained the revision number original. Since the Manual does not contain a list of effective pages, the inspection team could not determine if it was current in accordance with FAR Part 135.23.

FINDING 1.05.02: The General Operations Manual does not address the required procedure for eliminating fuel contamination. This is not in accordance with FAR Part 135.23(j).

1.06 FLIGHT CONTROL

DESCRIPTION: Cape Smythe Air Service, Inc., disseminates aeronautical weather data and aeronautical airport data in accordance with its Operations Specifications. The pilots and types of aircraft needed for each flight operation conducted under FAR Part 135, are scheduled by the flight schedulers. The maintenance departments, located at each facility, assign specific aircraft to each scheduled flight.

INSPECTION DATA: Cape Smythe Air Service, Inc.'s pilots were ramp checked to determine if they had current charts and publications required for the intended flight.

FINDINGS: None.

1.07 FLIGHT OPERATIONS

DESCRIPTION: Cape Smythe Air Service, Inc., operates all aircraft VFR and IFR primarily within the State of Alaska. The BE-99-C99 aircraft are generally flown by two pilot crews, but can be flown by a single pilot crew for cargo only operations. The remaining aircraft are generally flown as single pilot crew.

Passenger, cargo, and other operations are conducted at four Cape Smythe Air Service, Inc., passenger terminals. The main base of operation is located at 1707 Ahkovak Street, Barrow, Alaska. Three additional facilities are located at Nome; Kotzebue, and Deadhorse, Alaska. Additionally, each facility conducts their own flight operations.

* The Barrow facility operates two BE-99, one CE-185, and two CE-207 aircraft.

* The Nome facility operates one PA-31-350, one PA-31-T2, two PA-31-T3 and one CE-207 aircraft, which is utilized out of Koyuk, Alaska.

* The Kotzebue facility operates one CE-207, and one PA-31-350 aircraft.

* The Deadhorse facility operates one CE-207 aircraft.

All four facilities conduct fueling operations utilizing above ground fuel tanks. The Barrow facility also utilizes a fuel truck. Cape Smythe Air Service, Inc., has reserve fuel stored at Point Lay and Wainwright, Alaska. These fuel reserves are stored in 55 gallon drums and fuel transfer is accomplished by utilizing an electric pump.

Pilots can obtain maintenance at the hangar facilities located at Barrow, Nome, and Kotzebue, Alaska. The Deadhorse facility has maintenance available from Alaska Airlines in Deadhorse.

INSPECTION DATA: The inspection team compared flight and duty records with pilot qualification, multiengine load manifests, and the company Operations Manual for FAR Part 135 operations. The inspection team also conducted ramp inspections, enroute inspections, and observed flight operations throughout the inspection.

FINDING 1.07.01: In Nome, Doug Deering schedules aircraft. This is contrary to the Operations Manual which states the director of maintenance will provide schedules with a list of currently available aircraft.

1.08 OPERATIONS RECORDS

DESCRIPTION: Cape Smythe Air Service, Inc., maintains all pilot and flight operation records at the main base of operations located at Barrow, Alaska.

INSPECTION DATA: Pilot records were inspected for compliance with applicable Federal Aviation Regulations. The director of operations and the chief pilot participated by locating information and answering questions.

FINDINGS: None.

2.0 AIRWORTHINESS

2.01 MANAGEMENT

DESCRIPTION: Airworthiness management for Cape Smythe Air Service Inc., as given on their approved Operations Specifications, and in the Operations Manual, consists of a director of maintenance and chief inspector. The director of maintenance reports directly to the president of the company. The director of maintenance is over the maintenance personnel and coordinates inspections and required maintenance by having the lead mechanics assign aircraft by "N" numbers nightly to the operations flight schedule. The chief inspector has oversight for the designated and delegated inspectors. The chief inspector is also charged with the oversight of the station managers in Barrow, Kotzebue, Nome, and all ground personnel. The chief inspector answers directly to the president of the company.

INSPECTION DATA: The company Operations Manual and General Maintenance Manual listing responsibilities for the director of maintenance and chief inspector were compared to the current practices in place. Discussions during the course of the inspection were conducted to verify the experience required by FAR Part 119.69.

FINDINGS: None.

2.02 CERTIFICATE AND OPERATIONS SPECIFICATIONS

DESCRIPTION: Cape Smythe Air Service Inc., holder of Air Carrier Certificate CSAA021A, has been issued automated Operations Specifications and is operating under the terms and limitations stated therein. The certificate holder is authorized to conduct commuter and on-demand operations under *FAR Part 119* and Part 135.

INSPECTION DATA: Operations Specifications, sections D and E, were compared to FAR Part 135 for currency and content.

FINDINGS: None.

2.03 MANUALS AND PROCEDURES

DESCRIPTION: Cape Smythe Air Service Inc.'s General Maintenance Manual (GMM) contains company polices and procedures for maintaining aircraft. The single engine Cessna 185 and 207 aircraft and Piper PA-31-350 aircraft are maintained under a 100 hour, annual inspection program in accordance with the manufacturer's recommendations and additional limitations listed in the company's Operations Specifications. The multiengine, turbine Piper PA-31-T2 and T3 aircraft are inspected and maintained in accordance with the company's Approved Aircraft Inspection Program, (AAIP), the manufacturer's recommendations, and the limitations listed in the company's Operations Specifications. The Beech BE-99 aircraft are maintained in accordance with the company's Continuous Airworthiness Maintenance Program (CAMP), manufacturer's recommendations and limitations listed in the company Operations Specifications.

INSPECTION DATA: The inspection team reviewed the applicable sections of the Operations Specifications, Operations Manual, GMM, AAIP, CAMP, FAR Part 135, and compared those to the current policy and procedures currently found to be used during the inspection.

FINDING 2.03.01: The current company practices in place do not follow the General Maintenance Manual, Chapter 6, page 6-2, in that the chief inspector fills out the mechanical interruption summary reports (MISR), and forwards them to the director of maintenance. The pilots are actually filling out the MISR, and giving them to maintenance personnel. After the discrepancy is repaired, maintenance personnel forward the MISR to the director of maintenance.

FINDING 2.03.02: The General Maintenance Manual does not provide the director of maintenance latitude to delegate his responsibilities to designated maintenance personnel at the company's two other maintenance locations. Review of the company's Operations Manual and the General Maintenance Manual showed that the duties or responsibilities of the station maintenance supervisors in Nome and in Kotzebue are not addressed. Many of the duties and responsibilities that the two supervisors have are listed in the manuals under other management personnel in the company. The following is a list of some of the areas: maintenance logs, Mechanical Interruption Summary Reports, mechanical reliability reports, Airworthiness Directives, Minimum Equipment Lists (MEL), aircraft weight and balance, and the scheduling of aircraft.

2.05 RECORDS SYSTEMS

DESCRIPTION: Cape Smythe Air Service Inc.'s Operations Manual, under maintenance, and the General Maintenance Manual, Chapter 2, part 2, describes the policy and procedures for reporting and correcting mechanical irregularities, deferred maintenance items record keeping and tracking, aircraft records handling, and recording of major repairs and alterations. The director of maintenance has the ultimate responsibility for the airworthiness of all company aircraft, engines, accessories and components.

INSPECTION DATA: The inspection team reviewed aircraft records against the requirements in the Operations Manual, and FAR Parts 43, 91 and 135.

FINDINGS: None.

2.06 MAINTENANCE FACILITIES

DESCRIPTION: Cape Smythe Air Service Inc.'s principal maintenance facility and base of operation is located in Barrow, Alaska. Cape Smythe Air Service Inc., has two maintenance station facilities, one located in Kotzebue, and one located in Nome, Alaska. The hangar size, ramp area, storage limits, and parts departments vary in size and scope at each base.

INSPECTION DATA: The inspection team conducted spot and facility inspections at all three locations. The hangars were compared to the size of operation being conducted at each facility. The team reviewed the policies and procedures currently in place to the company's General Maintenance Manual policies and procedures. The computerized aircraft log maintenance programs and tracking systems were compared to the currency of tool calibration and tools currently used for maintenance. The parts department was reviewed for handling of parts, storage, records, and adequate components to maintain the company's aircraft at each facility.

FINDINGS: None.

2.08 MEL/DEFERRED MAINTENANCE

DESCRIPTION: Cape Smythe Air Service Inc.'s Operations Manual, under maintenance, and the General Maintenance Manual, Chapter 2, part 2, contains the policy and procedures for deferring maintenance. The minimum equipment list manual is divided by aircraft model type and addresses the maintenance policy and procedures required by FAR Part 135.179.

INSPECTION DATA: Cape Smythe Air Service Inc.'s Operations Manual was reviewed for procedures, including the revision status for company issued manuals. This operator developed a master log sheet that is kept in Barrow, Alaska. It has all company aircraft listed by "N" number and allows the director of maintenance to review when items have been deferred, what category of item it is, and when they are due for repair. Each deferred maintenance item was reviewed for ATA applicability, repairs made within time intervals for the categories as listed in their MEL system, and extensions to the maximum time intervals.

FINDINGS: None.

2.09 WEIGHT AND BALANCE

DESCRIPTION: Cape Smythe Air Service Inc.'s General Maintenance Manual, page 2-13, contains the company policies and procedures for maintenance personnel to perform weight and balance computations for aircraft. Examples of the company forms used for the weight and balance computation of multiengine aircraft are found in the General Maintenance Manual, Appendix C, pages C-7 through C-7C. Tracking of weight and balance requirements is done on the company's computerized aircraft log maintenance programs and reviewed by the director of maintenance.

INSPECTION DATA: The team reviewed the company's General Maintenance Manual, General Operations Manual, the weight and balance control procedures listed in E096 of the company's Operations Specifications, and the weight and balance currently found in company aircraft.

FINDINGS: None.

2.10 AD COMPLIANCE

DESCRIPTION: For each aircraft, Cape Smythe Air Service Inc. maintains the current status of applicable Airworthiness Directives (AD). The director of maintenance has the overall responsibility to oversee that ADs are in compliance.

INSPECTION DATA: Prior to the on-site inspection, the team reviewed current Airworthiness Directive listings against specific company make, model, and serial number of aircraft. The team also reviewed the operator's AD compliance and record keeping, and compared those to FAR Part 39 and FAR Part 91.417.

FINDINGS: None.

2.11 MAINTENANCE PROGRAM

DESCRIPTION: Cape Smythe Air Service Inc.'s maintenance program policy and procedures are outlined in the General Maintenance Manual. The Cessna 185 and 207 aircraft, and Piper PA-31-350 aircraft, are maintained in accordance with a 100 hour, annual inspection program in accordance with the manufacturer's recommendations. The Piper PA-31-T2 and T3 aircraft are maintained in accordance with the company's Approved Aircraft Inspection Program (AAIP). The Beech BE-99 aircraft are maintained under the company's Continuous Airworthiness Maintenance Program (CAMP). Section D of the Operations Specifications lists additional maintenance requirements, maintenance time limitations, AAIP, and CAMP.

INSPECTION DATA: Prior to the on site inspections, the team reviewed the company's policy and procedures for maintenance listed in the company's General Operations Manual, General Maintenance Manual, approved Operations Specifications, Approved Aircraft Inspection Programs, and Continuous Airworthiness Maintenance Program.

FINDINGS: None.

2.15 MECHANICAL REPORTING PROCEDURES

DESCRIPTION: Cape Smythe Air Service Inc.'s General Maintenance Manual, contains the policy and procedures for reporting mechanical irregularities, required by FAR Part 135.415. The director of maintenance is responsible for reporting mechanical irregularities

INSPECTION DATA: The inspection team reviewed the policy and procedures outlined in Chapter Five of the General Maintenance Manual and compared those to aircraft records.

FINDINGS: None.

2.16 MAJOR REPAIRS AND ALTERATIONS

DESCRIPTION: Cape Smythe Air Service Inc.'s General Maintenance Manual, Chapter 2, part 2, pages 2-10, contains the guidance for completing major repairs and alterations, in addition to FAR Part 43, appendix A and B.

INSPECTION DATA: The inspection team reviewed the company's policy and procedures in the General Maintenance Manual, FAR Part 43, and compared those to aircraft maintenance records for content and reference to approved data.

FINDINGS: None.

2.17 FUELING AND SERVICING

DESCRIPTION: Cape Smythe Air Service Inc.'s General Maintenance Manual, Chapter 10, and the General Operations Manual, outlines the policies and procedures for aircraft refueling. Although the Federal Aviation Regulations do not establish standards for fueling facilities, this does not relieve the operator of overall responsibility for conducting those operations within established industry standards. Cape Smythe Air Service Inc.'s General Maintenance Manual addresses the maintenance policy and procedures for fueling, defueling, and quality control.

INSPECTION DATA: Prior to the inspection, the team reviewed the company's General Maintenance Manual and General Operations Manual for refueling procedures. During the inspection the team observed the current practices in place for refueling company aircraft and inspected the fueling facilities at Barrow, Nome, and Kotzebue.

FINDINGS: None.

2.18 AIRCRAFT RAMP INSPECTION

DESCRIPTION: Aircraft ramp inspections are inspections of aircraft to determine the quality of maintenance and the degree of compliance with Cape Smythe Air Service Inc.'s maintenance procedures on in-service FAR Part 135 aircraft.

INSPECTION DATA: The team conducted random aircraft ramp inspections at all three company bases and reviewed the aircraft for compliance with current aircraft manuals, airworthiness certificate, registration, company Operations Manual, and aircraft seat configuration changes.

FINDINGS 2.18.01: Cracks in the propeller spinners on N207CS had been repaired by welding. Some cracks in the radius next to the welds had been stop drilled.

2.19 MAINTENANCE SPOT INSPECTIONS

DESCRIPTION: Aircraft spot inspections are inspections of in-progress maintenance operations to determine compliance with specific methods, techniques, and practices outlined in Cape Smythe Air Service Inc.'s Operations Manual, General Maintenance Manual, inspection programs, Operations Specifications, and applicable FAR.

INSPECTION DATA: The inspection team inspected aircraft at all three maintenance facilities for compliance with company procedures and applicable FAR.

FINDINGS: None.